# XIO3

Sept./Oct. 1993

A Newsletter produced by the Garden City Atari Computer Enthusiasts, 1003 Amphion St, Victoria, B.C. CANADA V8S 4G2

# *Editor's Mumblings...*

*This is another packed issue of XIO3. We have everything from the usual articles to not one, not two, but THREE articles in this issue ranging from a FALCON030 compatibility list to an insight of how LHARC works.*

*George Rose is having another one of his world class Social S.I.G. meetings at his house on Sept. 19. The get together is open to ALL members and there is an advertisment later in this issue explaining the details of the Social S.I.G. and George's number is there if you need to ask about directions.*

*Chris Sherwood*
*Editor, XIO3*

## GCACE needs a logo!

And guess who we thought of to make one? Yes, its the GCACE logo contest, a chance for you to exercise your graphic talents, and have your work immortalized as our symbol. It will appear on the newsletter masthead, on membership cards, GCACE advertising, correspondence, and anywhere else we can think of.

### The Rules

o The contest is open to all members of GCACE in good standing except panel members o All common digital paint or draw formats are acceptable (e.g. .PIC, .IMG, .GEM, .NEO, .PNT, .TNY, .CVG, Koala, and others)
o Hand or mechanically drawn entries are eligible
o If your entry is computer-generated, please submit a printed copy; the panel will request a copy of the winner's original file
o Entrants may submit more than one design
o Entries will become the property of GCACE
o GCACE reserves the right to modify the winning design according to the requirements of various print media o Entries may be submitted to panel members, or mailed to the GCACE mailing address and must include the member's name
o The winner will receive one year of free membership in GCACE, commencing upon expiry of his/her current membership, and
a) a copy of Easydraw, a drawing program for the ST, or
b) a copy of RAMbrandt, a paint and animation program for the 8-bit Atari
o The selection panel will consist of John Picken, Gordon Hooper, and Mark Erickson o Entries must be submitted no later than the GCACE meeting of November 18, 1993
o The winner will be announced at the annual general meeting on January 20, 1994
So get busy with those drawing and paint programs (or those low-tech pencils and brushes). Remember that the design must be versatile enough to be used in various ways and at different sizes, and must also be easily and clearly reproduced.

## G.C.A.C.E. EXECUTIVE

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## CREDITS

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## MEMBERSHIP

Membership dues are $25.00 per year for family memberships. Membership includes a subscription to the club newlsetter, XIO3, access to over 300 8-bit and 100+ ST disks, and if you are into telecommunications, increased time and upload/ download ratio on the official club BBS, the Pothole BBS, (604) 642-6795, 3-2400 bps, 24 hours, 7 days.

## MEETINGS

Meetings are held on the third Thursday of each month except December at the Saanich/Victoria Branch of the Victoria Public Library. Meetings start at 7 pm and usually run until about 9 pm. Copying of club disks, both 8-bit and ST usually takes place at meetings, unless the librarians cannot make it with their machines.

## ADVERTISING IN XIO3

Members can place classified ads (ie: Buy, Sell, Swap) for computer related products free of charge.

Commercial advertisments must be submitted as camera-ready artwork and be pre-sized. Please mail the artwork along with payment in full to Garden City A.C.E. care of the editor. Newsletters are published in January, March, May, July, September and November. The deadline for submissions is the 10th of the month in which the newsletter is being published.

The rates for commercial ads are as follows: Full page - $15.00. Half Page - $8.00, Quarter Page - $5.00, Business Card - $3.00. Please call the Editor for additional information.

# *Peeking Around*

## *by Gordon Hooper*

... GEORGE ROSE had the embarrassment of receiving a letter saying that he had forgotten to renew his membership since April '93 (this is July when I write this). I won't tell anyone, George. Anyhow, he came to my place to pay his dues, and gave G.C.A.C.E. a cheque for two years. Good idea, all the rest of you who need to renew. He arrived in a new car, a big red Buick that has every option except a built-in ST. Nice to see he got rid of the Japanese junk. George also announced that the first social meeting of the fall will be on Sunday, September 19th at his house at 7972 Galbraith Crescent from noon till 4. Phone George at 652-0572 for directions there. All club members are welcome ... Hello and welcome to new members JOHN O'NEILL, DAN MOEN and BOB SHUBROOK. Renewing are MICHAEL HARRISON, BUD MAINDONALD and CHRIS PRINCE. Sorry if I missed anyone. If I did, phone me ... Things aren't completely dead in Sooke, as I noted in the last column. JACQUIE and BOB NEX are rumoured to be expecting. Actually, it's only Jacquie that's expecting, but you know what I mean. Congratulations ... JOHN PICKEN is still a fan of that losing CFL team, the Ottawa Rough Riders. It looks as if they will beat the frustration record set by the B.C. Lions in '92 by winning only three games. He should become a fan of those winners, the B.C. Lions, who are are on track to winning the Grey cup in '93 ... JOHN TOWLER recently sold me his 30 meg harddrive, and I'd like to thank him for getting it set up for me and taking the time to show some of its mysteries ... MORGAN STEWART spending a lot of time at the Clayoquot protest. I'm expecting to see him get arrested on the Channel Six news each night. Here's a Grade A tip, Morgan: Don't use your phone call to ask me for bail money. JOHN PICKEN tried that and ended up with a bad case of prison pallor. Thanks go to Morgan for providing the last two meeting demonstrations, July 15th on file compacting and August 19th on BBS'ing and his Capoeira Circle board ... Thanks to ROWLAND and TANYA GRANT for hosting the September executive meeting ... JORDAN HAYTHORNTHWAITE, our member in Duncan, has volunteered to be our Falcon librarian. He will help Morgan Stewart, who will look after Falcon acquisitions here in Victoria. The Falcon is now available for sale at MicroVision in Nanaimo and at Wards Music on Fort Street here in Victoria ... Be sure and phone GORD at 386-0857 to rat on fellow members of G.C.A.C.E. who are engaged in disgusting practices, like TED SKRECKY. When he wasn't involved in these nefarious deeds, Ted found enough time to produce a new hardcopy of the G.C.A.C.E. catalogue, which is now on display at Tesseract Software ...


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# Atari News & Rumors

## by Rowland Grant

Well, the Atari Falcon computer has finally reached a store in Victoria. Ward Music received a demo model last month, but sales stock is now on hand. The retail price (4MB RAM and 80 MB HD) is $1699 cdn. So if you want to see a Falcon030 computer and you missed our June meeting, you can see one or buy one at Ward Music. I have heard that Micro-Vision Computers in Nanaimo sold more than fifteen Falcons in less than a month. Sales were mostly to ST owners. In Vancouver, Atari Falcon030 computers are available from several outlets. I dropped into Wizard Computers in Vancouver. They told me that Wizard will be sticking with Atari. Wizard sells PC clones, Macintosh, Amiga and Atari computers. There is about the same amount of wall and counter space for each type. A Falcon030 was on display. The in-store price is similar to Ward's. However, they can reduce the price to $1495 cdn if you place an order and pay in advance. Wizard would like to see a lower retail price on the Falcon to make it more competitive with the Amiga 1200 that they also sell. While the Falcon030 has more in it than the 1200, the $999 price for a 2MB and 40MB hard drive Amiga 1200 makes the 1200 look like a better buy. Apparently Wizard sells three Amiga 1200 computers for one of any other brand. Wizard keeps a good stock of ST software and accessories, but will not be selling ST computers. In fact, they can't get them from Atari. I have the impression that the ST line is finished in North America. Wizard is selling off all the old demo ST stock at bargain prices: a 520STFM for $85, a MegaST4 for $250. There is still an active Atari market in Vancouver. During my brief visit to Wizard three other Atari users came in and bought something.

So supplies of the Falcon030 are slowly seeping into the market like a drop of oil spreading out on paper. At the Atari annual meeting in June, Sam Tramiel admitted that the Falcon030 is not selling well so far. This is not surprising considering the delays and lack of advertising. Even worse, Atari is no longer promoting "power without the price". Sales are mostly to Atari enthusiasts. Anyone else who is looking for a new computer will be attracted by the lower prices of the clones, the Amiga 1200 or some of the Macintosh computers. When a '486 clone with hard drive and super VGA monitor is selling for under $1400 locally, Atari will have to lower the price of a similarly loaded Falcon030 to well below $1000 cdn (without monitor) before the average buyer would take notice. Yes, I know, the Falcon030 has special features, but those represent the "power" part of the slogan. How else is Atari going to sell a proprietary system with limited software support? Sam Tramiel went on to say that the Falcon030 is the first model in a series of new Atari computers, and that Atari will stay in the computer market. I hope that they can. There are rumours that Atari Germany, the "jewel in the crown" of Atari in the past has reached the state where it can't cover the rent with its earnings.

Atari had a good professional and business market in Germany. It is clear that the multi-media Falcon030 system doesn't attract this market. There are rumours that Atari will be introducing a new model of the TT featuring the fast 50 MHZ 68040 to compete with the clones in Germany. Apparently Atari will not be changing the case style of the TT. There is another rumour about a 68040 Falcon in a new case without cartridge port that might be aimed at the professional/business market. Anyway, Atari has registered the Falcon040 trade-mark. If the Falcon030 isn't selling up to Sam Tramiel's expectations, there are other figures released by Atari that put some scale to the situation. Apparently the Falcon030 production is 10,000 a month. Back orders (from dealers I suppose) are 60,000 in the U.S. and 300,000 in Europe. Production is very cautious in view of the orders. It would take three years to fill them at the present rate of 120,000 a year. I suspect that most of the orders will not be filled. Anyway, assuming that it costs Atari $500 per Falcon, that's five million up front or borrowed each month. A reasonably safe risk to start. Had sales been brisk, there would have been enough cash flow to increase the production. World wide sales are slow. So look for lower production rates and perhaps delays in new model introduction.

The one-for-ten consolidation of Atari shares was abandoned at the Atari annual meeting owing to a six-fold rise in Atari Corp shares to above $3.00. There are rumours that on May 17 Jack Tramiel sold some four million shares to Sam and Leonard Tramiel. Within a week, the share prices doubled. Is there a connection? Who knows! I suspect that rumours of new products had more influence on Atari's share prices. A prototype Jaguar game machine was demonstrated at the Atari annual meeting. It used games on CD ROM disks, and from all reports the display was very impressive. One of the shareholders brought his young son along. The boy was invited to play the Jaguar games. The Jaguar passed this test with flying colours. Sam Tramiel stated that the Jaguar would be manufactured in the U.S.A. In a later news release, Atari announced that the Jaguar would be made by I.B.M. in its factory in Charlotte, North Carolina. Storage and distribution would also be handled by I.B.M. A thirty month multi-million dollar contract has been signed. This helps Atari which has no factory, and it helps I.B.M. which has surplus production facilities. Jaguar prototypes are to be finished in July. Let's hope so, they missed an arranged photo-op in July. Jaguar production is to start in September to supply two test markets, San Francisco and New York. The Jaguar will be marketed elsewhere beginning sometime in 1994. An advertising budget for the Jaguar is three million this year and 45 million next year. At last, Atari is getting serious!

Bob Brodie has confirmed that Atari Explorer will not be published in the near future. He claims that Atari Explorer ran at a loss, and Atari is cutting its losses. I feel that if Atari considered the magazine as part of advertising, it might be justifiable as an expense. There are no North American glossy Atari magazines on the news stands. When Atari Explorer was published, it never equalled the quality of Antic or Analog or any of the Amiga magazines. A proprietary computer like the ST and Falcon needs the special support that a quality magazine can provide. Without it, I cannot see how a new line of computers could survive. The Falcon might

*con't from page 4*

be best advertised by a subsidised magazine with low advertising rates. Unfortunately, Atari magazines are slowly disappearing in other counties too. In Germany, there were three major publications: ST Computer, ST Magazin and TOS. There has been a rapid decline of advertising in those magazines. To survive, ST Magazin and TOS have merged with ST Computer. This has occurred just at the time when Atari has begun advertising the Falcon030. Not only has Atari Germany put out magazine ads, it is also advertising on local German radio. Processor Direct is the name of a proposed (glossy?) magazine covering the Atari Falcon in the U.S. Apparently promotional brochures are being prepared for distribution in August. It is not clear what the thrust of this magazine would be. Let's hope that it gets off the ground. In the meantime the venerable Znet Online magazine has merged with Atari Explorer Online. The online magazines on Compuserve and Genie are not in a position to replace paper publications as an advertising medium. Fortunately, several Atari magazines are available here from England. Unfortunately their ads are not much use. If one wants to find out what new software and hardware is available for Atari computers in North America, it is now necessary to subscribe to Current Notes, ST Informer and Atari Classics. That seems to be all we have left. Of course if one knew the addresses of all the ST users, one could advertise directly. This may be the motive behind the formation of a new group called "Atari United". One of its aims is to prepare a registry of TOS users in the U.S.. Atari United also plans to issue an on-disk newsletter.

One local (Vancouver) publication, Computer Paper, gives good coverage to the whole computer scene. In the August Issue (thanks Doug) there is a rather good review of the Falcon030 and its new operating software by Graeme Bennett. Graeme makes the point that most of the new features of the Falcon030 will not work without supporting software. For instance, the LAN port is useless without software. Similarly, the genlock compatibility counts for nothing without character generation, animation and video-editing software. The sound features are better supported, thanks to the market generated by the ST. However the new audio features are hampered by the economic necessity of equipping the Falcon with a "cheap and noisy" analog to digital converter. Also developers have reported a problem with the Falcon030's VGA interlace mode, screens sometimes come up scrambled. Apparently this could be cured by a simple circuit change. New hardware is available for the Falcon. Atari has not been supplying more than 4MB of RAM. Now Chromagic has introduced the "RAM Gizmo", a board that allows the addition of up to 14MB of SIMM cards. It retails for $99 US. There is another board, "ZRAM Falcon" that retails for $199. Atari says that Falcon030's without hard drive and with one MB of RAM are now available (for $799). There might be a modest market for these RAM boards when the price of SIMM boards comes down again. Compo Software in Holland has finally released Falcon Speed. This is a PC emulator for the Falcon that is fast and efficient enough to run Windows. Also there is the Screen Blaster that plugs into the Falcon's monitor port. This allows overscan up to a 2000X2000 screen in 16 colour VGA mode.

PhotoShow, a photo CD application is available for the Falcon. With PhotoShow, images from Kodak photo CD's can be viewed, and the images can be recorded on tape through a VCR with sound additions. Little software is available for the Falcon only. But a lot of new ST software has been designed to run on the Falcon and make use of some of its features. MultiTOS is another problem. A lot of older ST software won't run under it. I expect that we will be seeing labels "Falcon and MultiTOS Compatible" on new ST software. Pianistics, a piano instruction program, has been released with this compatibility claim. Flash II terminal program has been upgraded to run on the Falcon. Seurat paint program ver 3.0 supports the Falcon. Warp 9 screen accelerator is being developed to Falcon standards. And as the CodeHeads say "all we need is customers". Gribnif Software is about to release a major rewrite of Neodesk. This is good news for owners of older ST's who would like a sophisticated desk top. However, even more interesting is Geneva, a multitasking system that can run on most ST computers without demanding megabytes of extra memory. Geneva has been under development at Gribnif for the last two years. The AES part of the GEM system provides the familiar drop down menus, buttons and desk accessories, and so on. Apparently Geneva is a program that replaces the AES. It adds more features such as unlimited desk accessories, and will multitask the running of GEM application programs. Geneva will retail at $69.95 US, the combined package Geneva and Neodesk 4.0 is $99.95.

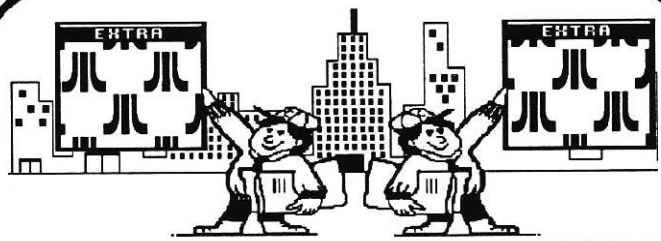
Atari has been releasing a lot of information on the Jaguar Game (multi-media) machine. The Jaguar is driven by a 64 bit RISC multiprocessing CPU and the data path is also 64 bit. In comparison, the ST has a 32 bit CPU and a 16 bit path. The Jaguar has some very powerful image and sound handlers that run at 27 million instructions per second. It will need all the speed that it can get to handle large screens of animation. The video output is 32 bit, giving up to sixteen million colours. Screen resolution is 720X576. There will be 2 MB of RAM on board. The Jaguar has two controller ports, a high speed synchronous port, a cartridge port and provision for CD ROM expansion. The Jaguar uses Comlynx input-output system for networked multi-console games. Cartridges use a JPEG image decompression mechanism. So games could use a lot of digitized video scenery. All this is supposed to sell for $200 US. Atari will be offering a CD ROM drive to go with the Jaguar for another $200. Atari claims that the Jaguar has twice the power of the 3DO system and one hundred times the power of the Super Nintendo. About nine games are now ready to go. They are Crescent Galaxy, Cybermorph, Evolution DinoDudes, Club Drive, Checkered Flag II, Tiny Toons Adventures, Alien vs Predator, Kasumi Ninja, Tempest 2000.

The Jaguar contains two custom chip sets and little else. These were developed in England. One chip set is the 64 bit RISC system and the other set is for the sound and video hardware. Both sets share some functions. According to Bob Brodie, the Jaguar chip sets could be used in computers. They would fit on a PC card. Atari is considering a computer using the Jaguar chips. Apparently software for the Jaguar is being developed on Atari TT computers. Looking ahead to CD ROM usage, Atari has licensed Cinepak image compression technology. This is also used by Apple and 3DO. Further, the huge library of Time-Warner video clips has been licensed to Atari for use by Jaguar software developers. The CD peripheral

will be dual speed and handle 700 MB of data. A cartridge is being developed that will handle 60 minutes of interactive movie from a CD disk. The Jaguar will also handle audio CD and Kodak photo CD. Atari plans to produce 50 thousand Jaguar units this year and half a million in 1994. Atari has stolen a march on most of the competition. Nintendo is looking for help, and has approached Silicon Graphics for chip sets and operating system for a high end game system.

The Jaguar is a representative of the new generation of computers. While, RISC central processors have been used for years on expensive work stations, and optical storage has also been available for some time, only recently has this technology been feasible for home computers. I have noticed a lot of PC software is now available on compact disk. The new PowerPC chip, developed by I.B.M., Apple and Motorola for personal computers is of the RISC variety. The traditional CPU of the Intel 80X86 or Motorola 680X0 series have reached their practical limits. To make a more powerful CPU chip, the designers have devised ways of adding more and more transistors. For instance the 80486 chip has over a million transistors. They have also increased the operating (clock) frequency of these chips by a factor of eight to ten. But all those transistors running flat out create a lot of heat. The fastest 80486 chips require special cooling to prevent them from burning up. The high frequency also causes problems. At frequencies above 60 megahertz, changes could be taking place in the CPU more rapidly than electrons can travel across the computer's circuit board. So the trick is to create CPU chips that can handle more data using fewer transistors, and run them at clock speeds below 60 megahertz. The RISC system does that. In the Reduced Instruction Set Computer, the CPU only handles the most necessary and frequently used instructions within the chip itself. Fewer instructions means fewer transistors. Also information is channelled such that the chip can handle three or more instructions simultaneously. Greater efficiency allows a slower clock. A modern game machine animating large images on a screen of sixteen million colours to the accompaniment of digitized sound must move a lot of information very fast. A powerful RISC system is the most practical and economical way to accomplish this. The Jaguar has to be based on RISC technology. In a few years I expect that most personal computers will have to be RISC computers too. It's hard to imagine Atari selling low priced game machines that are superior to its own line of computers. The Jaguar game machine may save Atari but it will probably kill the Falcon computer.

According to Bob Brodie, Atari is not encouraging ST development. He reported that Atari headquarters had a good laugh when ST Format magazine published the news that the 520STFM was going back into production as a games machine. Apparently, Atari in Britain has been selling a lot of 520STFM computers for around 150 pounds, half the usual price. But this could be the sale of old stock collected from around Europe, rather than the result of new production. Still, even in depressed economies there may be room for good (though slightly obsolete) products if the price is right. The sale of 520STFMs may be an inexpensive way for Atari in Britain to keep in the computer market. Moreover, ST users are a likely market for new Atari products. Times are tough all over, and this is reflected in the computer market. All sorts of well-regarded computer manufacturers are in serious financial trouble. Many will soon disappear. The question is, will Atari be one of them. Atari has declined from a company with ten thousand employees and two billions in sales in 1982 to less than 500 employees and 127 million in sales ten years later. In 1982 Atari made its great profits from the sale of game consoles and cartridges. Atari computers were not big money makers. In these recessionary times Atari must expand to survive, a very difficult task. To expand, Atari must find or create new markets, the computer market is a shambles. But the Game and multi-media console market may still be viable. Atari began as a producer of arcade games and game machines. Atari is still remembered as such. If the Jaguar saves Atari, will Atari remain for long in the computer market? It's all very interesting.




**ST/8-bit Social S.I.G.**

*September 19, 1993*

*George Rose's Place*

*7972 Galbraith Cres., Saanichton*

*NOON - 4pm*

*for directions, phone George at 652-0572*

# FALCON030 Compatibility List

by: Jordan Haythornthwaite

The following programs were tested on my new Falcon 030 computer. It has 4mb and an 84mb HD connected to an SVGA monitor. It has TOS 4.04, which to my knowledge is the most current.

## LINK UP GAMES

After unsuccessfully getting a link between my Falcon and ST (using nullmodem) on several games, I am forced to assume there is an incompatibility in this area. Modem link-up may work, although I can't confirm this.

## MONITOR COMPATIBILITY

There is some confusion as to what monitor is best. For some reason some European demos will only work on RGB monitors but most software (99.9%) will run on all types. As for quality, you can't beat an SVGA, especially in the higher resolutions. After running different resolutions on my STFM's RGB monitor anything higher than 480/200 (MED RES) results in a slightly flickery screen and a loss in quality. I will point out that when running one of my Falcon Demos on the SVGA, it was only 40% screen size, but on my RGB 90%! So advantages could be had both ways.

## TELECOMMUNICATIONS

Due a change in the Modem port on the Falcon O3O (not only has the size changed but the hardware interface is different), some telecommunications programs will not work properly, such as FLASH I & II, but upgrades are being developed. I am reliably informed that STalker works. All Falcon O3O owners will have ATARI WORKS, which will soon be upgraded with a Telecom program included.

## PUBLISHING

I have used Publishing Partner and its upgrade, Page Stream. Both work flawlessly in any resolution. Other publishing programs such as Calamus (1.09N, SL, Font) and Calligrapher Pro are also compatible.

## MUSIC AND SOUND

All the big music packages (Cubase, Notator SL, Breakthru, etc.) have some problems but as I type, upgrades and O3O versions are coming out giving access to the DSP chip for real time effects and hard disk recording. As for sampling packages, I tested Stereo Master and got a big crash upon loading. There is too much hardware difference for cartridge samplers to work. You may even damage your machine plugging them in! But with the Falcon's built in 16 bit Digital DMA Input, sampling packages will be cheap. I purchased the very good MUSICOM for $70.00 and every Falcon comes packaged with Falcon D2D, a direct to hard disk recording program.

## GRAPHICS

Most work as long as you're in an ST resolution, but some such as Spectrum 512 with its palette shifting may have problems. For $95.00 you can get TRUE PAINT, which is an excellent package supporting all the Falcon's official video modes, which also views and saves to a massive amount of formats and is totally compatible with any ST/STE/TT.

## PROGRAMMING

I tested GFA Basic successfully, but if you have programs written for your ST they may not run. Modular-2 and Hisoft's Basic and C are compatible or can be upgraded now, other programming packages may also work but the programs written on them may crash when calling on specific hardware, especially in the higher up languages like assembly. A Falcon version of Devpac is on the way as well as other enhanced programs allowing freedom to the new hardware.

## CONCLUSIONS

Atari has tried hard to keep compatibility, but failed miserably. This however is good for the Falcon itself as it becomes established as the "NEXT GENERATION" of Atari computers. This fresh start will be the starting block for Atari's re-entry into the spotlight where they belong.

## GAMES THAT DONT EVEN TRY TO RUN

AAARGH!!! - Arcadia ANOTHER WORLD - Delphine Software/U.S. Gold ASTEROIDS DELUXE - Atari BAT II - UBI Soft CAPTIAN FIZZ - Psyclapse CHAOS ENGINE - Renegade CONQUEROR - Rainbow Arts D/ GENERATION - Mindscape DRAGONS LAIR II - Ready Soft DYNA BLASTERS - UBI Soft ELITE - ? EPIC - Ocean ESCAPE FROM THE PLANET OF THE ROBOT MONSTERS - Tengen FALCON(INCLUDING MISSION DISKS) - Spectrum Holobyte FULL METAL PLANETE - Infogames GOBLINS - Coktel Vision GUY SPY - Ready Soft HUNTER - Activision ISHAR - Silmarils (There is a Falcon 030 version coming out) LAMATRON - Lamasoft/Jeff Minter LEANDER - Psygnosis LEMMINGS - Psygnosis OH NO MORE LEMMINGS - Psygnosis (This is not LEMMINGS II) LURE OF THE TEMPTRESS - Virgin MAGIC POCKETS - Renagade OBLITERATOR - Psygnosis PIPE MANIA - Empire POPULOUS - Bullfrog POPULOUS II - Bullfrog POWERMONGER - Electronic Arts REVENGE OF THE MUTANT CAMELS - Lamasoft/Jeff Minter (Jeff Minter has just finished a Falcon 030 only version of this classic!!) R-TYPE - U.S. Gold RICK DANGEROUS - MicroPlay SHADOW DANCER - U.S. Gold SLEEP WALKER - Ocean SPACE ACE - Ready Soft STARGLIDER II - Arganout Software STAR RAIDERS - Atari STUNT CAR RACER - MicroProse TARGAN - Silmarils TEMPLE OF APSHAI:TRILOGY - Epyx THIRD REICH - Thailon/Avalon Hill Games VROOM - Lankor WARZONE - Core Designs WEIRD DREAMS - MicroPlay WIZKID - Ocean WRATH OF THE DEMON - Ready Soft XENON II - ImageWorks

## GAMES THAT GET THROUGH THEIR INTROS THEN.... CRASH!

ARMOUR GEDDON - Psygnosis PITFIGHTER - Tengen ROBOCOP III - Ocean SILENT SERVICE - MicroProse THE KILLING GAME SHOW - Psygnosis VIKING CHILD - Imagitec X-OUT - Rainbow Arts

## GAMES THAT SORT OF WORK

* = Will install on Hard Disk

*CIVILIZATION - MicroProse (The palette is messed but the game is

*con't on page 8*

*con't from page 7*

stillplayable you could try some colour rearranging) (ST Low Rez) *FIRE BRIGADE - ? (Tends to crash horribly but does work at times) (ST Med & ST High Rez) OIDS - FTL (The video output flickers all over so being cross eye may help) (ST Low Rez) *WAR GAME CONSTRUCTION SET - S.S.I. (The new gem window may leave lines on the screen when you scroll right or down they can be erased by changing the view) (ST Low Rez)

GAMES THAT WORK!!!

* = Will install on Hard Disk

ANDES ATTACK - Lamasoft/Jeff Minter (Colourful defender clone) (ST Low Res) *CYBERDROME -RHEA-FX/Fair Dinkum Tech.(Takes advantage of the extra speed) (ST low Res) (Older versions may have problems but you can simply upgrade for free, just call and they will be happy to help.) DUNGEON MASTER - FTL (Auto Boots) *EMPIRE - Interstel (ST Med & ST High Res) *FLIGHT SIMULATOR II - Sublogic (WOW! It runs super quick and smooooth!)(Will work in ST low & ST High Res) *KINGS QUEST II - Sierra (I'm sure I,III,& IV also work) (ST Low Res) *MISSLE COMMAND - Atari(ST Low Res) (MultiTos Compatable) *MOON PATROL - Atari (Any Resolution) STREET FIGHTER II - U.S. Gold (It not only runs but takes advantage of the increased speed which makes a brutally fast game but not to fast to be unplayable, great fun especially in two player mode! WHEN SETTING UP THE CONTROLS USE THE JOYSTICK TO SELECT PLAYER 1's CONTROLS AND THE KEYS FOR PLAYER 2's.) (Auto Boots) *SUPER BREAKOUT - Atari (ST low Res) *SECRET OF MONKEY ISLAND - LucasFilm (Faster, slicker animation. A great game made better) (ST low & ST High Res) *SIMCITY - Maxis (ST Low Res) *RAILWAY TYCOON - MicroProse (ST Low Res)

# HOPALONG

**by: Douglas Sckrecky**

The September 1986 issue of Scientific American had a discusion of some fractal algorithms. One of these was called Hopalong and it seemed to produce pretty designs at a rather rapid clip. However this algorithm did use the square root function, which is known to operate quite slowly on most computer makes. After tinkering with Hopalong for some time I discovered that this slow function could be replaced with a faster division operation, with a consequent increase in speed. The modified Hopalong program below rewritten in GFA Basic for the Atari ST shows how simply this fractal generator can be implemented.

Now for a little history. In May of 1987 a now defunct Atari 800 computer magazine called Antic published my basic version of Hopalong. It wasn't a smash hit. Running on a modest 6502 CPU based home computer using a slow basic interpretor was not going to do much justice to any fractal algorithm. On the Atari 800 only mandelbrot set generators ever received much attention due to the great beauty of their fractal patterns. I wrote one myself and can attest that you needed the patience of Job to obtain worthwhile results. However there did exist a very fast integer only compiler called Action! for the Atari 800 which could yield speeds approaching that of assembly language for a fraction of the programming effort. After some hacking on my part an Action! version of hopalong appeared in the August 1989 issue of Antic. This complied version replaced division with a right shift operation derived from assembly language and ran roughly 100 times as fast! In December 1990 I placed both the source code and compiled runtime for a deluxe Atari ST GFA-basic version in the public domain. This included facilities for exploring the fractal patterns at various magnifications as well as the capibility for saving to and loading from disk "live" fractal patterns. I hope hackers out there have fun with this program and use it to produce their own high speed fractal generators.

'Atari ST GFA-basic Demo of HOPALONG

```
@initialize_screen_colors
@new_pattern    WHILE BIOS(1,2)=0   !no
keys pressed
  IF x>0 THEN
    xx=y+x/dither1+cx
  ELSE
    xx=y+x/dither2-cx
  ENDIF
  y=cy-x
  x=xx
  @cycle_colors
  PLOT xc+x/128,yc+y/256
  count=count+1
  IF count>5000 THEN
    @new_pattern
  ENDIF
WEND
'
PROCEDURE initialize_screen_colors
  SETCOLOR 0,0,0,0
  SETCOLOR 1,7,1,1
  SETCOLOR 2,1,7,1
  SETCOLOR 3,1,1,7
RETURN
'
PROCEDURE new_pattern
  CLS
  x=0
  y=0
  kolor%=0
  xc=320
  yc=100
  dither1=2+RAND(4)
  dither2=2+RAND(4)
  cx=2000+RANDOM(1000)
  cy=2000+RANDOM(1000)
  count=0
  RETURN
'
PROCEDURE cycle_colors
  kolor=kolor+1
  IF kolor>3 THEN
    kolor=1
  ENDIF
  COLOR kolor
RETURN
```

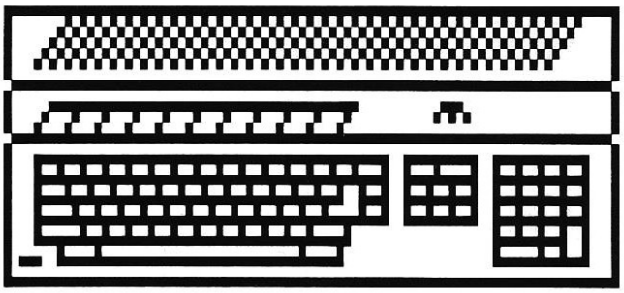
# Club Meetings

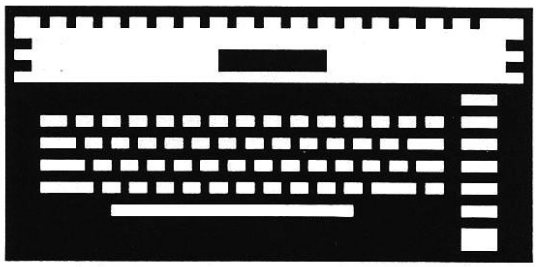
*by: Rowland Grant*

The July meeting featured data compression. This is an important topic since all our files in the ST library are compressed, as are all files on the Pothole BBS and the CC:ST BBS. We had nobody lined up to demonstrate this, so Morgan Stewart kindly volunteered to try it. Morgan brought along his hard drive to demonstrate his software. He went through ARC, LHARC, ZIP and ZOO. Our ST library has switched over to LHARC since it seems to handle ARC files, will handle folders and gives a good data compression ratio. Ted Skrecky is doing the data compression follow-up with an article that should be somewhere in this issue of XIO3. John Picken was on hand to give a demonstration of Arc on the XL/XE systems, but of greater interest was his latest software development. On XL/XE systems using any version of DOS, a disk format will usually stop when it hits an unformattable sector. John has written a program that will continue formatting if a bad sector is found, but the bad sector in question will be marked "in use" in the VTOC (Volume Table Of Contents). Thus DOS will skip the bad sector when files are being saved to disk. John had trouble finding a bad disk suitable for his demonstration. Most of the bulk 5.25 disks sold nowadays are without blemish. MS-DOS users have had the bad sector skipper for years, now Atari 8-bit users can have the same advantage. John's formatting program is not quite ready for release as yet. Also John is still chasing the bugs in his XL2 program that he demonstrated in June (although it works pretty well for me).

At the August meeting Morgan Stewart was the star performer again. This time Morgan demonstrated his CC:ST BBS. Morgan brought his ST system, except for the modem. A null modem cable attached the BBS to George Rose's ST. My noisy colour monitor completed the setup. Morgan showed how his system looks to a user logging on to the board and how it looks to the sysop at the same time. Of course the CC:ST BBS is usually running without the attention of the SysOp. However, there is a lot of housekeeping for the SysOp to do to keep the board running. Morgan demonstrated the resources of his BBS, and showed the various message bases, on-line games and software files. You can even use the CC:ST BBS to complain to our local member of parliament; a useful public service. At the end of his presentation Morgan demonstrated a download by transferring his software data base from the his hard drive to George's. We ran out of time before all the files could be transferred. Too bad George!

Our order of PSAN newsletters arrived. This issue contained the announcement that PSAN will no longer be published. The numbers of subscribers has become too small to get any economy of scale in printing or postage. The costs per issue have gone up too high. John Strand, PSAN editor and president of SPACE in Seattle-Tacoma, intends to go on producing a newsletter for SPACE. The last PSAN issue had original articles by members of SPACE and one from our own Gordon Hooper. This issue was so thin that we decided to distribute the copies of PSAN free to the members present. There were just enough to go around. The founder and the power behind PSAN was Jim Chapman of Tacoma. With the help of a few other members of SPACE, Jim built PSAN into a first class magazine. It rivalled any other Atari magazine of its type, such as AIM. When we became involved with PSAN, Jim warned me that too much depended on him and he might not be able too keep it up. Some three years later illness and exhaustion finally caught up with Jim. Others tried to help out but nobody would take on the full responsibility, so PSAN lapsed. Later John Strand stepped into Jim's shoes and PSAN started again. Unfortunately only half of the participating clubs came back. PSAN lacked the funds and article contributors; it began a downward spiral. We stuck with PSAN to the end. For two of PSAN's peak years, almost every issue had at least one article written by a Garden City ACE club member. Among our contributors were John Picken, Gordon Hooper, Doug Skrecky, Ted Skrecky, Steve Lemmen, Bob and Jacqueline Nex. John and Gordon were very frequent contributors. Hardly an issue of PSAN came out without an article by John in it. PSAN was a great enterprise and I'm glad that we were involved.





# 8-bit/ST Library Report

*by: Ted Skrecky*

Some new games have arrived at Tesseract Software. One of them is Ishar 2: Messengers of Doom. Ishar 2 is a fantasy role-playing game which is a bit similar to the legendary Dungeon Master (DM) game. Since the days of DM, many clones have been made but none have had the excellent, colourful graphics that can be found in Ishar 2. Some very fancy programming has been done to make it possible for 32 colours to be on the screen in low resolution. Most ST low res games only have 16 colours. The programmers have also put a significant amount of effort into the fantastic digitized sound effects. When you are out in the marshlands, your ears are almost constantly bombarded with the sounds made by the various small creatures such as birds that inhabit the area. As soon as I discovered Ishar 2 was available at Tesseract, I zoomed down and purchased a copy. You can probably guess that I like role-playing games and Ishar 2 should keep me out of trouble for quite sometime as it apparently is 3 times bigger than the original Ishar game.

Ishar 2 isn't the only new role-playing game at Tesseract. The game that many Atarians, including myself, have been waiting for has finally arrived. It is Legends of Valour and playing it is rather like a virtual reality experience. In the city of Mitteldorf and its dungeons you will find lots of action, combat, glory, romance, friendly law-enforcement agents and hoards of demonic creatures. Also worth noting is that Legends has 3D texture-mapped graphics. This means you can do neat stuff like slam into a wall at any angle! Legends of Valour is also quickly becoming famous for being one of the most expensive games made for the Atari ST. The price at Tesseract is $89. With tax, that comes to $102! However, the price didn't stop me from buying it, though, it does look like I will have to eat hamburger helper for the next month in order to pay my credit card bill when it comes in!

The 2 other recent arrivals are The Chaos Engine and The Ancient Art of War in the Skies. The Chaos Engine is an utterly fantastic arcade game which received a rating of 94% in the July 1993 issue of ST Format. Chaos Engine was written by the Bitmap Brothers. They have been responsible for some of the best games to appear on the ST platform such as Gods, Xenon 2 and Magic Pockets. There should be a review of this Bitmap Brothers game by a new club member, Jordan Haythornthwaite, in this issue of XIO 3. The last game, Ancient Art of War in the Skies, is a strategy/arcade affair. I haven't seen this game in operation but it must be fairly good as it received an 86% rating in the September 1993 issue of ST Format.

The big news this month is that Version 3.0 of the Garden City A.C.E. Atari ST Software Catalog has been produced. Check the following disks for new STuff: #28, #51, #63, #92, #93, #124, #125 and #126. You can get a copy of the catalog by bringing a blank disk to the next club meeting or get on the Pothole BBS (642-6795) and download a file from the ST Misc file section called GCACE.LZH.

In the last issue of XIO 3, an article I wrote called BART was published. There is one thing I should mention about it. For some totally unknown reason, the desktop publishing program, known as Calamus, which is used for producing the newsletter, didn't properly print the Internet address for the Bart file server. The address starts with "atari" and this is immediately followed by a very small floating dot. That floating dot should have been an AT-sign. Maybe over in Germany, which is where Calamus was made, the AT-sign is a floating dot! To get that AT-sign (or floating dot) to appear on the screen, hit the SHIFT key and the 2 key at the same time.

I was planning on writing another article about the Free-Net and Internet file servers but it looks like I will not have time to do it for this issue. However, I will talk about a few important things in this library report. The most interesting discovery I have made is that you can completely avoid all those Free-Net message prompts that appear on the screen while you are capturing messages to your buffer. Hit uppercase "T" instead of lowercase "t" when "typing" the first message to the screen. When you are ready to start on the next message, hit uppercase "N". I have also found that once you have read all the messages, you can hit lowercase "z" in order to deleted every message in your Free-Net mailbox all at once.

Besides BART, there are 3 other file servers containing ST PD files that I now know of which can be accessed via the Internet. The SPUD file server can be reached at archive-server@hyperion.com. The University of Utrecht in the Netherlands can be reached at mail-server@cs.ruu.nl. The last is the University of Stuttgart which can be reached at mail-server@rusmv1.rus.uni-stuttgart.de. Aquiring software listings from SPUD and the U of Netherlands is quite easy but it did take me many hours to figure how to get a catalog from the U of Stuttgart. To get that listing, send the following request to the Stuttgart file server: "send soft/atari/FILES". "FILES" must be in uppercase!

That's all I have to report on for this issue of XIO 3. I think it is now time for me to fasten my tin bucket to my head, put some fresh batteries in my SPACE: 1999 Stun Gun and descend into the dungeons of Ishar 2!

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# ARC, LHARC and RAMDISKS

*by: Ted Skrecky*

The two types of command-line file archivers used by the Garden City A.C.E. ST library are ARC and LHARC. The main purpose of both these programs is to take all the files that belong to a particular program and data compress them into one archived file. When the club library was started by ST Librarian Ron Thibodeau, the only file archiver we had was Version 5.20 of ARC. By the time I had become ST Librarian, another archiver had arrived on the scene. It was Deltavision System's LHARC Version 0.51. It didn't take me long to decide I wanted to switch to using LHARC because its compression algorithm was vastly superior to ARC. LHARC could crunch down material to a much smaller size.

There was one rather annoying problem with both Version 5.20 of ARC and Version 0.51 of LHARC. Neither file archiver could handle folders (subdirectories). When either Ron or I were confronted with a program which accessed files in one or more folders, we first had to archive the contents of each folder seperately, write a text file that stated that the contents of this and that archived file must be placed in an folder named this and that, and then we archived the entire sheebang into one file. This was alot of work!

Eventually, Version 6.02 of ARC was released and, amazingly, it could recognize folders and add them into the .ARC file. When you went to decompact the ARCed file, ARC would create the folders and place the correct files in each of them. Unfortunately, I was determined to use LHARC because of its excellent data compression abilities so I had to struggle along for quite sometime until I aquired a copy of Haruyasu Yoshizaki's LHARC Version 2.01. I immediately started to jump up and down excitedly when I realised that Yoshizaki's LHARC could do folders.

Yoshizaki's LHARC was a bit different than Version 0.51. Deltavision's archiver used a compression algorithm called lh1. This new archiver used lh1 but it also had another algorithm called lh5. I believe 2.01 also has a couple of other types of algorithms but I don't know the exact story as most of the documentation I have is in German! The good news about lh5 was it could compress files down a bit better than lh1. The bad news was that UNLZH172.PRG, a very user-friendly .LZH decompacter, could not recognize the new algorithm. When UNLZH tried to extract files from a lh5 .LZH file, it would barf-up some "CRC errors." However, if you are using UNLZH on .LZH files from our club disks, you will (hopefully) not get any CRC errors because I have gone out of my way to avoid using lh5. Thanks to Version 3.1 of Charles F Johnson's ARCshell program, I did manage to figure out how to toggle Yoshizaki's LHARC into lh1 compression mode. I could now compress entire folders into a .LZH file and, most importantly, UNLZH had no problems unarchiving these files.

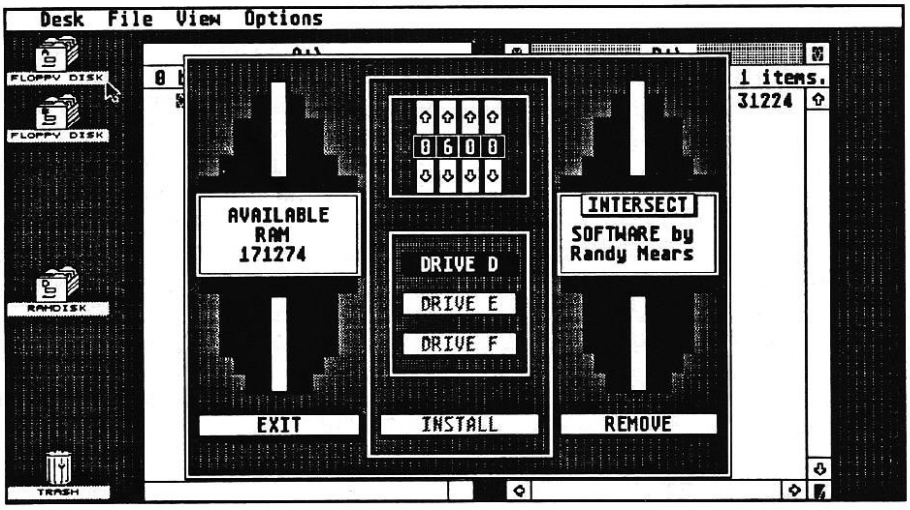



***Fig. 1***
*The main menu of the Intersect RAMdisk accessory.*

Although it was really great to be able to add folders, my enthusiasm for that ARCshell program quickly diminished. Since I didn't know the various commands for LHARC 2.01, ARCshell was nice in that it made it possible for me to archive a program by pointing and clicking on various options and then clicking on "GO" to begin the process of archiving. What I didn't like was the fact that ARCshell had to support all the commands that LHARC had, most of them I had no real use for, and because of all these windows and menus, the program was sucking-up too much of my valuable RAM. This made it difficult to compress large programs when using a combination of RAMdisk and my 1 disk drive. For those who don't know, a RAMdisk is a portion of computer memory set aside to operate like an additional disk drive. Both ARCshell and LHARC 2.01 required a certain amount of memory to run so I found that I could only install a RAMdisk of 500K on my 1 meg machine. I usually had the source files I wanted to archive on DRIVE A and then had the file archiver write the resulting .LZH file to RAMdisk. Frequently, there wasn't enough room for the .LZH file and the source material to be on the one disk in DRIVE A, so the RAMdisk was very useful as a temporary storage area.

One day, while I was busily archiving ST programs, I noticed that ARCshell displayed, at the top of the screen, the sequence of commands it sent to Yoshizaki's LHARC. I tried archiving programs that had folders and then extracting these .LZH files and wrote down all the commands that ARCshell sent to LHARC. Next, I tried using LHARC without ARCshell. I typed in the appropriate satanic commands and, voila, I found I could magically archive entire folders. I no longer needed to use ARCshell! This was quite exciting as it meant that I could install a larger sized RAMdisk on my system due to the fact I now only had to reserve enough room for LHARC to operate.

Ok, now that I have given a brief history of my explorations of the wonderful world of ARC and LHARC, I can get to the main reason for why I decided to write this article. I thought it would be helpful to the members of the club if I gave a step by step discussion on how to archive and unarchive .ARC and .LZH files. You can use these archivers if you have a one disk drive

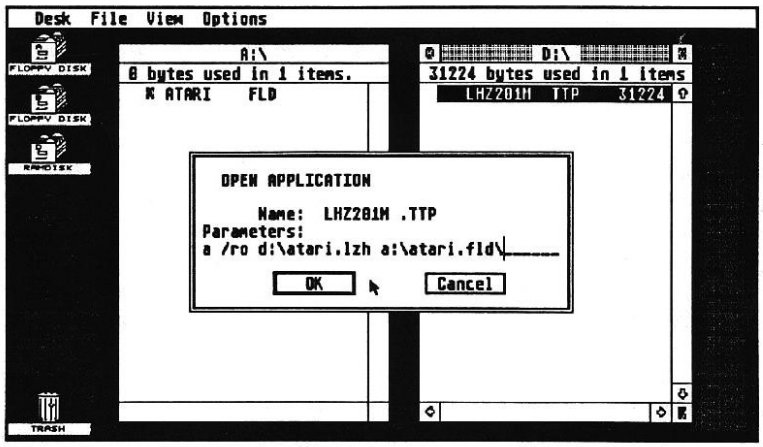
system and, of course, having two disk drives is better but my favourite method is to use 1 disk drive for reading the "source" material and having the .LZH file written to the RAMdisk.

Before I start talking about file archivers, I would first like to mention how to get a RAMdisk up and running. My favourite program for creating a RAMdisk is called the Intersect RAMdisk accessory (Fig. 1). This RAMdisk is available on the GCACE catalog disk and on Disk #4 as an ARCed file. The Intersect accessory has two files: INTRAM.ACC and INTRAM.RSC. Both files must be in the main directory of a disk. To use, you must boot your computer with this disk in Drive A. On the screen you will see icons for FLOPPY DISK A, FLOPPY DISK B and the TRASH CAN. Since the RAMdisk is like a third disk drive, you will need another DISK DRIVE icon on the screen. If you boot the GCACE catalog disk, you will find DRIVE D is already there but, if you don't have this disk, I will explain how to create DRIVE D.

You already have icons for DRIVE A & B on the screen. RAMdisks are usually installed as DRIVE D, E or F. I always use DRIVE D. To install, you must click once on the FLOPPY DISK DRIVE A icon and then move your mouse pointer to the top of the screen and pull down on "OPTIONS". Select "Install Disk Drive", change "Drive Identifier" to D, and change "Icon Label" to read "RAMdisk." Next, click on "Install" and a DRIVE D icon will appear on the screen. It would now be a good time to pull down on "OPTIONS" and select "Save Desktop" so the next time you boot this disk, you will not have to reinstall DRIVE D.

There is now only one more task to do to get the RAMdisk operational. Move your mouse pointer to the top left corner of the screen and pull down on "DESK". You will see "Desktop Info" and right below it is "INTERSECT Ramdisk". Clicking on it will bring the main Intersect RAMdisk menu up on the screen. When the menu appears, use your mouse to decrease the size of the RAMdisk as you will not want all of your RAM as a RAMdisk. If you have a 1 meg system, a 500K to 600K RAMdisk should be enough. Click on "Install" and then exit the accessory. Your RAMdisk is now ready to accept any files you may want to put into it.

Although LHARC is my favourite archiver, I will first discuss how to compact and decompact files using Version 6.02 of




***This is what you would see when using LHARC to archive the contents of a folder called ATARI.FLD on DRIVE A and placing the results in ATARI.LZH on DRIVE D.***

ARC. This version of ARC can be found in a folder called ARC602 on the catalog disk. If you click into the folder, you will find a file called ARC.TTP. Click with the left mouse button on ARC.TTP and, while continuing to hold down the left button, move the mouse pointer over to the DRIVE D icon and release. What you are doing is copying ARC.TTP into the RAMdisk.

Next, open a DRIVE D window by double clicking on the DRIVE D icon. To make life easier, I usually resize the DRIVE D window so it is on the right-side of the screen and then I open a DRIVE A window and resize it so it is on the left-side of the screen.

Ok, ARC.TTP in now in DRIVE D so we can start archiving some files. I have found the easiest way to archive files is to make sure that all the files belonging to a particular program are in a folder on a disk on DRIVE A. If the files you want to compact into an ARCed file are scattered around the main directory with files belonging to other programs, archiving the appropriate files is going to be alot of work! However, if everything is in a folder then all you have to do is point ARC in the direction of the folder and tell it to archive everything it finds in it.

Lets say we have a folder on a disk in DRIVE A that has been named TEST.FLD. In this folder there are some more folders (subdirectories). To use ARC.TTP, double click on it. In the middle of the screen a box appears. It says "Open Application" and below that it says "Parameters". What we want to do is archive the entire contents of TEST.FLD and have the resulting archived file called TEST.ARC written to the RAMdisk (DRIVE D). Actually, the destination filename can be anything such as OH-NO.ARC but you must make sure that the extender is ".ARC". To archive everything in TEST.FLD and write the results to TEST.ARC, type the following on the command-line (of course, don't type the quotation marks!): "az d:\test.arc a:\test.fld*.*" and hit the RETURN key. "Now", you say "what does all that mean"? The first two characters are quite important. The "a" tells ARC.TTP that you want to create an ARCed file. The "z" tells ARC.TTP that you want to include the names of the folders, if there are any, and the files contained in them into the ARCed file. Some archivers go funny if you type commands in uppercase so it is a good idea to type "az" in lowercase. Next is "d:\test.arc". This tells ARC.TTP that you want to create an ARCed file in the RAMdisk (DRIVE D) and under the name TEST.ARC. The last part of the sequence is "a:\test.fld*.*". This tells ARC.TTP to look for a folder on DRIVE A called TEST.FLD and archive everything in it.

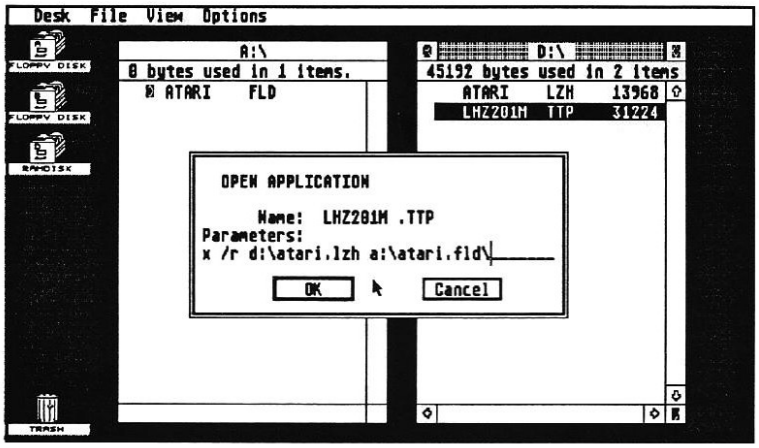
If you have a 512K ST, or you just don't want to bother using a RAMdisk, I will show you what you would type in order to archive the contents of TEST.FLD by using two disk drives and by using 1 disk drive. If you have 2 drives, type the following if the source material is on DRIVE A and you want the destination to be DRIVE B: "az b:\test.arc a:\test.fld*.*". If the source is DRIVE B and the destination is DRIVE A then type "az a:\test.arc b:\test.fld*.*". If you only have one disk drive, and don't have a RAMdisk installed, type the following to archive all the STuff in TEST.FLD: "az a:\test.arc a:\test.fld*.*". As you can see, telling ARC.TTP which is the source and destination drives is quite easy. Just type "a:\", "b:\", etc before the source and destination filename.

When it comes to extracting the contents of ARCed files, the first thing to do is to create a folder for every .ARC file you are going to decompact. If you have an ARCed

file on DRIVE D called TEST.ARC, create a folder on DRIVE A called TEST.FLD. ARC.TTP is in the RAMdisk. Actually, it isn't necessary to have the ARC archiver in the RAMdisk. You could have it on DRIVE A or DRIVE B but, for this article, we will say it is on DRIVE D. Now, double click on ARC.TTP and type the following: "x d:\test.arc a:\test.fld\". The "x" command tells ARC.TTP that you want to extract the contents of an ARCed file. Next is "d:\test.arc". This tells ARC.TTP that the ARCed file is on DRIVE D and the filename is TEST.ARC. The last bit is "a:\test.fld\". This tells ARC.TTP that you want the files extracted from TEST.ARC placed in a folder on DRIVE A called TEST.FLD. Once the extraction process has been completed, you should find in the folder on DRIVE A all the files, including folders, that were in the original folder called TEST.FLD. Impressive.... eh?

Archiving files with LHARC Version 2.01m is a bit more fun. This version of LHARC is available along with a shell program in a .LZH file called REQST109.LZH on DISK #98. In this article I am only going to tell you how to data compress files in the old lh1 mode. This means that fantastic UNLZH172.PRG utility will be able to decompact the .LZH files without crashing and burning. Lets say we have a folder on DRIVE A called ATARI.FLD and it contains folders. DRIVE D will be the destination drive. The resulting .LZH file will be called ATARI.LZH. To do this, type the following on the command-line: "a /ro d:\atari.lzh a:\atari.fld\". The first character is "a" and it tells LHARC that you are going to create a .LZH archived file. The next bit is "/ro". The "r" tells LHARC to archive any folders it finds. Even if there aren't any folders to archive, it is ok to type the "r". Everytime I go to archive any files, I always start by typing "a /ro". I believe the one time I don't bother to type the "r" is the time when the program I am archiving is going to have folders. The person who later decompacts that .LZH file would no doubt find that the program doesn't run because some vitally important folders are missing! Ok, so after the "r" is "o". From what I have figured out, this must be the command that toggles LHARC Version 2.01 into lh1 mode. The "d:\atari.lzh" tells LHARC that DRIVE D is the destination drive and the archived file will be called ATARI.LZH. The last bit is "a:\atari.fld\". This tells LHARC that the source is DRIVE A and the material to be compacted is in a folder called ATARI.FLD. Please note that, unlike ARC, LHARC doesn't need the "*.*". ARC requires this but you don't need tell LHARC that the source is "a:\atari.fld*.*".

You now know how to use LHARC to archive files located in a folder. If you only have one file to archive, you can place it in a folder and then get LHARC to go into the folder and compress whatever it finds but it would be easier to just specify the exact file to archive. Lets say we have a file in the main directory of a disk on DRIVE A called GCACE.TXT (The ST catalog!). To compress the text file and place the resulting .LZH file on DRIVE D, type the following: "a /ro d:\gcace.lzh a:\gcace.txt".




***This is what you would see when using LHARC to extract the files in ATARI.LZH on DRIVE D and placing the results in a folder called ATARI.FLD on DRIVE A.***

As I have said before, it isn't necessary to type the "r" if there are no folders to archive but I just happen to do it all the time anyways. The only noteworthy different when it comes to archiving one specific file is that right after you have told LHARC which drive is the source, instead of typing the name of a folder, you type the filename.

Next on the agenda is how to extract .LZH files by using LHARC. This is quite important, especially since LHARC can decompact .LZH files done with the lh5 compression algorithm. There are .LZH files on many computer bulletin boards, including the Pothole BBS, that are done in lh5 and, as I have already stated, UNLZH172.PRG can't handle them. Now, lets say we have ATARI.LZH in the RAMdisk and we want to extract the files to a folder we have just created and decided to call ATARI.FLD on DRIVE A. Type the following on the command-line: "x /r d:\atari.lzh a:\atari.fld\". The letter "x" tells LHARC you want to extract files from a .LZH file. The "/r" bit is quite important as it tells LHARC there are folders. With ARC you don't have to type "z" after the "x" because ARC can detect folders in the .ARC file but, for some unknown reason, LHARC is a bit dumb in this respect. If you don't type "/r", it will not create any folders within ATARI.FLD. The next bit is "d:\atari.lzh" which tells LHARC that the .LZH is on DRIVE D and the filename is ATARI.LZH. The last bit is "a:\atari.fld\". This tells LHARC that DRIVE A is the destination and that the extracted files should be placed in a folder called ATARI.FLD.

You may find that the decompacting process is sometimes interrupted by LHARC asking the following question: "Ordner Anlegen [J/N]". This happens everytime LHARC encounters a folder in the .LZH file. It is obviously asking if you want to create the folder. As far as I am concerned, this is really dumb! I wouldn't have bothered to add the folders in the first place if I didn't want to have them created when the .LZH was decompacted. Just type "J" for "Ja".

Bye the way, there are a few .LZH files in the GCACE library containing programs that will not work if placed in a folder. Because of this, I thought I should mention how to extract a .LZH file and have the files written to the main directory of a disk instead of into a folder. Type the following: "x /r d:\atari.lzh a:\". As you can see, the only difference is that the destination is listed as "a:\".

With the information contained in this article, it should be possible for any member of GCACE to archive and extract files using Version 2.06 of ARC and Version 2.01m of LHARC. If anybody out there has any questions, you can talk to me in person at the club meetings, send a message to "The CyberLord" on the Pothole BBS (642-6795) or phone me at 598-6173. Advice is always free for GCACE members!

# FOR SALE

Steven Lemmen 595-7811

## Hardware For Sale

Atari 1040 STFM, 1 meg of memory, internal DSDD drive,TOS 1.0
RF modulator and mouse, all you need to get started, $200
Atari 1040 STF, 2.5 meg memory, TOS 1.4, double sided drive, $350
Atari 1040 STF, 4 meg memory, TOS 1.4, double sided drive, $450
HP DeskJet printer,300 dpi B&W inkjet,240 cps,$600 new,1 year old,$375
OmniMon multisync monitor, 13",use as mono or colour, with switch,$280
StarSync multisync monitor switcher,colour,mono,audio video jacks $80
Atari ST SC1224 colour monitor, low and medium resolution, $225
Atari ST SM125 monochrome monitor, high resolution, $150
Atari ST external DSDD disk drive, power light, floppy flipper, $125
Spectre GCR, Macintosh emulation cartridge, with ROMs, Ver 3.0, $225
VIDI ST, colour video digitizer cartridge, $80
Brother SF-40 cut sheet feeder for Brother M-1509 printer, $25
Colour TV, 19" RCA Colortrak, great for 8 bit machines, $65
Atari 1020 printer/ plotter for 8 bit, 4 colour pens, $20
Raven PR-9102, 9 pin dot matrix multi mode printer, $135
Panasonic KX-P1080i, 9 pin dot matrix printer, $125
Packard Bell, 1200 baud external modem, $25
Mouse Master, joystick/ mouse extension/ switch box, $25
Dual paddle set for 8 bit machines $10
Hytex, Japanese NES, 110 game cartridge and Mario Bros 3, $165
ICD AdSpeed ST, 8/16 Mhz accelerator, 32K cache, $150, or $175 installed
Swivel Monitor Base, $10
Monitor Master,Practical Solutions colour/ mono monitor switch box,$25

*Steve has a lot more hardware and software than listed here, so if you are looking for some HW or SW, give Steve a call and he will send you out a complete list!! He also does repairs, upgrades, etc.*

## ST Software For Sale

*original disks with manual*

1st Word, wordprocessing software, $10
Action Fighter, excellent spyhunter style car driving arcade game, $15
Airball Construction kit and game, arcade maze game, $10
Arcade Pack 1, Xenon, Blastaball, Sidewinder, $20
Archipelagos, ecological planet simulation, $15
Armour-Geddon, strategy arcade war game, modemable, $20
Art & Film Director, graphic paint and animation software, $25
Austerlitz, Napoleon strategy board wargame, $15
Autoduel, adventure game, $10
Baal, arcade shoot em up game, $10
Balance of Power, geopolitical strategy board game, $20
BB/ST bulletin board system, $10
Black Lamp, arcade adventure game, $10
Blood Money, excellent shoot em up, 1 or 2 player simultaneous, $15
Bloodwych, D & D adventure game, $15
BSS Jane Seymour, D&D style, Sci Fi arcade adventure game, $20
CAD-3D Ver 2.0, Cyber Mate, Cyber Control, 3D drawing/ animation, $25
Captain Blood, space strategy game, $10
Captive, excellent sci fi theme D&D role playing action game, $20
Test Drive, car driving simulation, $10

## 8 bit Software For Sale

*original disks with manual*

Field of Fire, wargame, $10
Gulf Strike, wargame, $10
Theater Europe, wargame, $10

## Books For Sale

Analog Compendium, 189 pages, $10
Best of Antic Anthology, 298 pages, $10
The Atari ST Book, Vol 1, Ralph Turner, 15 9 pages, $10
6502 Assembly language programming, Lance Leventhal, $10
2nd Book of Machine Language, Compute book, 446 pages, $10
Mapping the Atari, Compute book, 194 pages, $10
Misc magazines, Antic, Analog, ROM, Start, Creative Computing, Byte ST Action, Compute, Reset, ST User, $1 ea
Presenting the Atari ST, Abacus, 179 pages, $5
Adventures with the Atari, Basic computer adventures, 356 pages, $5
Compute's 1st Book of Atari Games, 230 pages, $5
Basic, Getting Started, 152 pages, $5
Beginners Basic, 64 pages, $3

## Upgrades and Repairs

*minimum charge $25*

1 meg memory upgrade to 520 STFM, type with internal drive, $125
2 meg memory upgrade to 520 ST, type with external drive, $250
2.5 meg memory upgrade to 520 or 1040 ST with internal drive, $250
4 meg memory upgrade to 520 or 1040 ST with internal drive, $450
4 meg memory upgrade to 1040 STE, type using SIMMs, $275
4 meg memory upgrade to Mega 2, $250
Dual TOS 1.0 and 1.4,toggle switch,maintain compatibility,not STEs,$12 5
TOS 1.4 upgrade, installed, $90
ST mouse repair, most problems are cable or buttons, $25
Floppy flipper for disk drive, write to back of disks, $25
Upgrade single sided disk drive to double sided, $110
Hard drive expansions, expand by adding internal mechanisms, $ call
Repairs to Atari ST and 8 bit equipment, reasonable, negotiable, $25 min
Custom Atari upgrades and modifications, reasonable, negotiable, $25 min